

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|   |   |    |                          |                        |                   |
|---|---|----|--------------------------|------------------------|-------------------|
| Substitute for form 1449A/B/PTO<br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br><i>(Use as many sheets as necessary)</i> |   |    | <b>Complete if Known</b> |                        |                   |
|   |   |    | Application Number       | NOT YET ASSIGNED       |                   |
|   |   |    | Filing Date              | December 9, 2003       |                   |
|   |   |    | First Named Inventor     | Kanwal K. Raina        |                   |
|   |   |    | Art Unit                 | N/A                    |                   |
|   |   |    | Examiner Name            | Not Yet Assigned       |                   |
| Sheet   | 1 | of | 2                        | Attorney Docket Number | M4065.0206/P206-C |

| U.S. PATENT DOCUMENTS |                       |   |                                |  |   |
|-----------------------|-----------------------|---|--------------------------------|--|---|
| Examiner Initials*    | Cite No. <sup>1</sup> | Document Number<br>Number-Kind Code <sup>2</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
| JL                    | AA                    | 5,210,472   | 05/1993                        | Casper et al.*                                     |   |
|                       | AB                    | 5,808,400   | 09/1998                        | Liu*   |   |
|                       | AC                    | 5,825,126   | 10/1998                        | Kim*   |   |
|                       | AD                    | 5,869,169   | 02/1999                        | Jones*   |   |
|                       | AE                    | 6,086,442   | 07/2000                        | Sandhu et al.*                                     |   |
|                       | AF                    | 5,186,670   | 02/1993                        | Doan et al.*                                       |   |
|                       | AG                    | 5,319,279   | 07/1994                        | Watanabe et al.*                                   |   |
|                       | AH                    | 4,624,737   | 11/1986                        | Shimbo*  |   |
|                       | AI                    | 4,642,620   | 02/1987                        | Togashi et al.*                                    |   |
|                       | AJ                    | 5,989,999   | 11/1999                        | Levine et al.*                                     |   |
|                       | AK                    | 5,853,492   | 12/1998                        | Cathey et al.*                                     |   |
|                       | AL                    | 5,747,384   | 05/1998                        | Miyamota*  |   |
| ✓                     | AM                    | 5,888,906   | 03/1999                        | Sandhu et al.*                                     |   |

| FOREIGN PATENT DOCUMENTS |                       |  |                                |  |   |
|--------------------------|-----------------------|--|--------------------------------|--|---|
| Examiner Initials*       | Cite No. <sup>1</sup> | Foreign Patent Document<br>Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|                          |                       |  |                                |  |   |

\*EXAMINER: Initial If reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

| NON PATENT LITERATURE DOCUMENTS |                       |   |                |  |
|---------------------------------|-----------------------|---|----------------|--|
| Examiner Initials*              | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |  |
| JL                              | CA                    | John H. Das et al., "LOW WORK FUNCTION ADDRESSABLE SILICON FIELD EMISSION SINGLE CATHODE WITH INTEGRATED LATERAL FEEDBACK RESISTOR AND SUSPENDED HEATER", School of Electrical Engineering, pages 47-51.*   |                |  |
|                                 | CB                    | W.A. Mackie, "WORK FUNCTION MEASUREMENTS OF DIAMOND FILM SURFACES", Linfield Research Institute, pages 2041-2045  |                |  |
|                                 | CC                    | Qing-An Huang et al., "THE ADVANTAGES OF N-TYPE HEAVILY-DOPED SILICON AS AN EMITTER FOR VACUUM MICROELECTRONICS", 9 <sup>th</sup> International Vacuum Microelectronics Conference, 1996, pages 155-157.*   |                |  |
| ✓                               | CD                    | B.C. Djubua et al., "EMISSION PROPERTIES OF SPINDT-TYPE COLD CATHODES WITH DIFFERENT EMISSION CONE MATERIAL", IEEE Transactions on Electron Device, Vol 38, No. 10, October 1991, pages 2314-2316.*   |                |  |

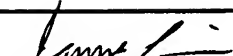
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|   |   |    |   |                          |                   |
|---|---|----|---|--------------------------|-------------------|
| Substitute for form 1449A/B/PTO<br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br><i>(Use as many sheets as necessary)</i> |   |    |   | <b>Complete If Known</b> |                   |
|   |   |    |   | Application Number       | NOT YET ASSIGNED  |
|   |   |    |   | Filing Date              | December 9, 2003  |
|   |   |    |   | First Named Inventor     | Kanwal K. Raina   |
|   |   |    |   | Art Unit                 | N/A               |
|   |   |    |   | Examiner Name            | Not Yet Assigned  |
| Sheet   | 2 | of | 2 | Attorney Docket Number   | M4065.0206/P206-C |

|    |    |   |  |
|----|----|---|--|
| JL | CE | Qi-Lue Chen et al., "INVESTIGATION OF ELECTRON TUNNELLING EMITTER", Beijing Vacuum Electronics Research Institute, pages 488-490.*                                      |  |
| JL | CF | J. Ishikawa et al, "CONE-SHAPED METAL INSULATOR SEMICONDUCTOR CATHODE FOR VACUUM MICROELECTRONICS", Dept. of Electronic Science and Engineering, Japan, pages 1970-1972 |  |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

|                    |   |                 |         |
|--------------------|---|-----------------|---------|
| Examiner Signature |  | Date Considered | 7/12/06 |
|--------------------|---|-----------------|---------|



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2008. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|   |   |    |   |                          |                        |
|---|---|----|---|--------------------------|------------------------|
| <b>Substitute for form 1449A/B/PTO</b><br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   |    |   | <b>Complete if Known</b> |                        |
|   |   |    |   | Application Number       | 10/730,041-Conf. #2998 |
|   |   |    |   | Filing Date              | December 9, 2003       |
|   |   |    |   | First Named Inventor     | Kanwal K. Raina        |
|   |   |    |   | Art Unit                 | 2879                   |
|   |   |    |   | Examiner Name            | Not Yet Assigned       |
| Sheet   | 1 | of | 1 | Attorney Docket Number   | M4065.0206/P206-C      |

| U.S. PATENT DOCUMENTS |                          |  |                                |  |   |
|-----------------------|--------------------------|--|--------------------------------|--|---|
| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|                       |                          | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
| JL                    | **AA                     | 5,371,431                                | 12/06/1994                     | Jones et al.                                       |   |
| JL                    | **AB                     | 5,840,118                                | 11/24/1998                     | Yamazaki   |   |

| FOREIGN PATENT DOCUMENTS |                          |   |                                   |  |   |                |
|--------------------------|--------------------------|---|-----------------------------------|--|---|----------------|
| Examiner<br>Initials*    | Cite<br>No. <sup>1</sup> | Foreign Patent Document   | Publication<br>Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>or Relevant Figures Appear | T <sup>4</sup> |
|                          |                          | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) |                                   |  |   |                |
|                          |                          |   |                                   |  |   |                |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

| NON PATENT LITERATURE DOCUMENTS |                          |   |                |
|---------------------------------|--------------------------|---|----------------|
| Examiner<br>Initials*           | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
|                                 |                          |   |                |
|                                 |                          |   |                |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

|                       |  |                    |         |
|-----------------------|--|--------------------|---------|
| Examiner<br>Signature |  | Date<br>Considered | 7/12/06 |
|-----------------------|--|--------------------|---------|